Meeting Minutes
E-Waste Stakeholder Workgroup
February 24, 2006

The Electronic Waste (E-Waste) Stakeholder Workgroup held their first meeting on February 24, 2006, at the Missouri Department of Natural Resources (department) Conference Center in Jefferson City. Sixty-five people attended the meeting, representing manufacturers, vendors, recyclers, environmental groups, waste haulers and processors, several Missouri state agencies, federal agencies, local governments, and other interested parties. A copy of the agenda and attendance list is attached.

I. Welcome and Introductions:

Mr. Mike Menneke, representing the department's Hazardous Waste Program, opened the meeting and introduced Department Director Doyle Childers. Director Childers greeted and welcomed the stakeholders and described the purpose of the workgroup.

II. Framer's Framework

Mr. Menneke introduced Mr. Tim Warren, representing the E-waste Stakeholder Framing Committee. Mr. Warren gave a presentation describing the framing committee and their responsibility. The presentation also outlined the framing committee's guidance and organizational framework for the E-waste Stakeholder Workgroup. A copy of the presentation is attached.

III. How Missouri Currently Manages E-Waste

Mr. Menneke introduced Mr. Dennis Hansen, representing the department's Hazardous Waste Program. Mr. Hansen and Mr. Menneke gave a presentation describing what E-waste is and Missouri's current regulatory framework. A copy of the presentation is attached.

IV. Industry Driven Solutions

A. Batteries

Mr. Menneke reintroduced Mr. Warren, this time representing Rechargeable Battery Recycling Corporation (RBRC). Mr. Warren gave a presentation describing who RBRC is and how they recycle batteries. A copy of the presentation is attached.

B. Computers and TVs

Mr. Menneke introduced Mr. David Beal, representing EPC Inc. Mr Beal gave a presentation describing who EPC Inc is and how they refurbish, resell and demanufactur e-scrap. A copy of the presentation is attached.

V. What are the Key Issues?

During the afternoon session, the stakeholders divided into four subgroups to discuss issues concerning e-waste collection, transportation, processing and disposition. Each group discussed barriers, incentives, education issues and best management practices in relation to each category.

VI. Small Group Discussions

A. Collection (Facilitator: Alice Geller)

Ms. Geller, representing the department's Director's Office, welcomed the attendees and all meeting attendees introduced themselves. The discussion started with the stated goal for collection to be safe, affordable, convenient and universally available.

Costs are always an issue. Collections do have associated costs that vary with the level of on-site sorting/processing before delivery to the processing facility. Higher fuel costs have affected the cost to conduct collections. In order to control the collection point from bad actors, a collector must take action such as adding fences, staff, changing practices or processes = adds up to higher costs for a retailer or other entity that becomes a collection point.

The argument was made that today's landfills, which conform to RCRA Subtitle D requirements, can safely accept these materials without damage to the environment - why not dispose of them? This would make cost for recycling collection a non-issue. Other comments pointed to the estimates that only 10-15% of discarded computers currently end up in landfills, so we don't know if there would be problems if all of the discarded computers were sent to landfills. By reusing or recycling these materials, raw materials and energy would be conserved, reducing the environmental impact of material extraction and coal-powered energy production.

The natural resources and beauty of Missouri are a valuable asset that needs protection from further illegal dumping; if we address this type of issue, we can promote the state as an environmentally friendly place to live and work.

The representative from Consumer Electronics Association (national organization) stated that while a majority of their membership is not opposed to a fee, Hewlett Packard and the retail members are. A fee charged at the retail location makes them "the bad guy." California has an advanced recycling fee (ARF); everybody gets a cut – collectors, retailers, processors – but there are detractors.

A representative for Missouri Retailers Association stated that they would oppose a fee collected at the point of purchase. If Missouri has a fee, more retail business will go to neighboring states, particularly Kansas or Illinois because of the large concentration of population in the St. Louis and Kansas City areas.

Wal Mart was originally opposed to a fee, but the new law in Maine has affected their opinion. Since Wal Mart sells computers under their own brand name, they are "manufacturers" under the new law. This requires Wal Mart to take responsibility for the recycling of old units.

A suggestion was made to approach businesses that normally spend money on advertising and ask them to help promote and support collections for good public relations.

From a retailer of appliances, if large companies would stop dropping profit margins on their products, thereby edging out smaller stores, these stores would have the money to fund collection.

Grants are helpful, for equipment start-up particularly; staffing is an ongoing cost, capital costs are one-time. Tax credits are of limited value, particularly for individual consumers.

We can argue about who should pay or what's wrong with fees all day – are there other ways to cover costs? What other barriers are there?

In some areas we don't need to add collection/processing services, but need to build on the infrastructure already in place and get more people to use it.

Ecycle St. Louis (ESTL) has gone through these issues. Recyclers must charge a fee or they are not sustainable. They have many collectors in STL, so they feel they must focus on education to increase the use of the available capacity.

Regarding public education and opinion, remember that people say that they recycle, even if they don't – the social desirability factor. St. Peters finds that about 40% really do participate and it's very difficult to raise that level.

A new approach to creating collection points, such as using retail outlets, is not a good idea if it bypasses existing processors/recyclers.

Inadequate storage space is a barrier to collection.

The need for technical proficiency by some staff at collection points can be a barrier. At some collections, materials are tested to see if they are working or not, particularly if the activity includes making usable components available to local individuals or organizations.

Rural areas have fewer options and probably greater costs due to distance from processors or end markets. A suggestion was made to approach rural electric cooperatives as potential collectors.

Collection points want regulations that are specific to this process, rather than trying to deduce which federal or state regs apply to their situation.

Liability or perceived liability is tied to concern that haz waste regs make a distinction between household and business generated waste. Would like to see electronics added to the Universal Waste Rule in Mo.

Retailers hesitate or refuse to get involved due to potential regulatory liability; could have a store employee make determinations on materials that come in (e.g., from household or business?) – that is too much responsibility for hourly wage employee. Suggest that "good Samaritan" laws could apply or be adopted.

Want inspections by state or federal agencies to be consistent and practical. Existing or potential collectors need "best management practices" guidance specific to Mo. A collector needs an exemption from haz waste regs. The state could have a certification process so that collection staff are trained in proper management methods.

1. What are the barriers to successful collection?
    - In rural areas, the distance to collectors/markets
    - Need technical proficiency for some staff (working vs non-working)
    - Segregating different components and brands
    - Regulation
    - Haz waste / Universal waste rule**
    - Inspection consistency, practical
    - Collectors not penalized for poor/illegal handling; exempt collectors (Ohio or Iowa)
    - Liability – may have 3rd party Registered recycler (Control)**
    - Retailers hesitant to charge a fee for collection; viewed by consumers as a tax/fee**
    - Gives advantage to Ill or Kan

- Need space for storage and sorting

2. What incentives exist or should be created?
    - Tax credits have limited help
    - Grants / Corporate sponsorship
    - Education / promotion**
    - Convenient drop-off – in rural areas means a relatively short distance; work with Rural Electric Coops
    - Minimal costs for collection: staff and small misc costs
    - Remove liability

** bullets would be focus of next discussion

B. Transportation (Facilitator: Andra Kliethermes)

Ms. Kliethermes, representing the department's Hazardous Waste Program, welcomed the attendees and all meeting attendees introduced themselves. The general feeling of the subgroup was that people are not concerned with the transportation aspect of e-waste at this time. There are other more important topics like the collection, processing and disposition aspects of e-waste right now.

The subgroup stated that the goal of transportation of e-waste should include the following issues:

1. Make it as easy as possible so it is not a barrier or additional expense
2. Don't over-regulate if there isn't a problem or environmental impact
3. Use economies of scale (aggregate truckloads to help save dollars)
4. Don't see that the different components represent unique handling/shipping needs

Important that the record keeping is simple, such as an informal manifest system not regulated by the state. May have to rely on each organizations own due diligence. Should use what means of regulatory or due diligence is already established? It was suggested that there was no real way to ensure transportation from point A to point B without individual due diligence and still keep it simple and non-regulated.

1. What are the barriers to successful transportation?
    - Regulations
    - Distances that must be traveled to get e-waste to destination (lack of organizations that recycle or take e-waste)
    - Cost
    - Packaging issues that must be worked out when transporting
    - If State or Federal Organization (current rules that must be followed)

2. What are the regulatory or policy issues?
    - If the product is not a waste it should not be regulated as such

3. What are the economic issues?
    - The cost of transportation (gas, trucking cost, labor, time)
    - The cost is generally put back on the consumer or general public

4. What incentives exist or should be created?

- People generally want to do the right thing
- Determine ways to minimize cost to everyone (general public and recycling organizations)
- Create or help provide opportunities for existing programs to coordinate with each other (e.g. Spring Curbside Cleanups, Household Hazardous Waste Collections, Recycling programs)

5. Education Needs
    - Who:
        a. Those dealing with e-waste (Collection Organizations and Private and Commercial Organizations)
    - What:
        a. Important to have accurate information
        b. Important to be "official" so organizations know this is what needs to be followed (there is a lot of miss-information that people are told)
    - How:
        a. "Official e-waste web site
        b. Local media
        c. Work shops that cover the whole e-waste issues

C. Processing (Facilitator: Heidi Rice)

Ms. Heidi Rice, representing the department's Hazardous Waste Program, welcomed the attendees and all meeting attendees introduced themselves. Ms. Rice went over what group the attendees are in and the goal for the processing group as developed by the framing committee. Goal: "Store, demanufacture and reuse e-waste in a manner that does not pose a hazard and is environmentally sound (no speculative accumulation or release)."

Ms. Rice asked the group if they agreed or disagree that this should be their goal. The group stated that their goal should also include the following issues:

1. Data security
2. Making sure that the e-waste is actually being processed (sham recycling)
3. How to make e-waste processing economically sustainable in order to help prevent processing companies from cutting corners.
4. Helping the public tell the difference between legitamit processing companies and sham recyclers.

The groups discussion centered around four main issues:

1. Best Management Practices: The group wanted to know what criteria a company had to meet to be listed on the department's Web site. They also discussed who would audit the companies to make sure they are following the required criteria (state vs. local vs. third party). The group also stated that companies needed to carry some kind of "financial assurance" to pay for cleanup in the event that they go bankrupt. Another issue was educating companies, particularly small and medium businesses, on the current regulations. They do not know that they are not supposed to dispose of their e-waste in the trash. The group also said that Best Management Practices would need to include looking at downstream vendors and some type of incentives.

2. Manditory "Take Back": The group suggested that if a electronics manufacturing company was required to "take back" their products to recycle, it would hurt Missouri processing businesses. Large companies may be required to send their e-waste to the manufacturing company in another state or another country. If the e-waste is sent to another country, how can we be sure that they are being demanufactured in and environmentally sound way?

3. E-Waste Processor Certification: It would help the public and create a level playing field for processing companies if there was some type of certification created. The processing companies would be required to meet minimum requirements to receive this certification and various perks (being listed on the department's Web site). Processing companies would not be considered "bad" if they were not certified. Certified companies would be considered "better." This would also help the public tell the difference between legitamit processing companies and sham recyclers. The group suggested having a third party certify the companies, although the issues was brought up as to how would we know they are certifying the processing companies correctly.

4. Ban on Disposal: It was suggested that there be a ban on disposing all e-waste in landfills. A ban would force everyone to take their e-waste to a processing company, which would increase business and profits. It would also prevent hazardous waste releases from the e-waste at landfills. An infastructure would need to be in place before the ban to prevent illegal dumping. It was suggested that the ban go into effect within 18 months to 2 years, giving a deadline for putting an infrastructure in place. The group did maintain that if there was to be a ban, the state whould have to commit to help build the infrastructure.

Ms. Rice asked the group to review the notes on their discussion and to think about how these issues fit into 4 main issues for the groups goal.

1. What are the barriers to successful processing?
    - economics/profitability (the profit margin is very thin)
    - lack of a ban
    - potential for manditory "take back"
    - no standards for processing companies
    - lack of e-waste education for businesses (they do not know the rules)
    - data security

2. What are the regulatory or policy issues?
    - no regulations to prevent sham recyclers
    - inconsistent regulations for household vs. businesses
    - "voluntary" certification or registration for "approved processing companies"
    - lack of e-waste education for businesses (they do not know the rules)
    - need a ban, including 18 months to 2 years until in effect to build infastructure

3. What are the economic issues? The group decided that this issue was covered in the other three issues.

4. What incentives exist or should be created?
    - "core charge": the purchaser pays a surcharge that would go into a fund (say $10). The processing companies could dip into part of it ($8) so that the purchaser does not pay the processing company to recycle it. The purchaser would get money back ($2) when they take it to the processing company, thus promoting recycling.
    - tax credit for the processing companies
    - landfill ban to force everyone to take their e-waste to the processing companies (volume = money)
    - pollution credit trading.

D. Disposition (Facilitator: Candace Bias)

1. What are the barriers to successful disposition?
    - Materials of construction
        - hard to recycle some plastics
        - seven types of thermal plastics
    - Public/commercial perception
        - Costs of recycling vs. metal recovery
        - Electronics have a value because it cost them money
        - Educate public: Why they should pay $10 to recycle vs. put in the trash
    - Labor intensive
        - Tracking recycling streams after processed
        - Issuing certification to owner that the material is being properly handled (recycled or disposed)
        - Consolidation of facilities that deal with recyclables
    - Limited market for recycling
        - Transporting to one location, end markets far away
    - Current regulatory system
    - Complexity of electronics recycling
        - Many different types of electronics
        - Many different types of materials in each type of electronics

2. What are the regulatory or policy issues?
    - Household exemption
    - Lack of clear policy from the department
    - Lack of incentives that drive recycling
    - Lack of certification of demanufactures
    - Lack of exemptions from TSD requirements
    - Cost to obtain/comply with TSD regulations
    - Lack of recycling certification/permit that is easier to get than a TSD permit, that doesn't limit waste being at a facility to 24 hours, but that still has oversight
    - Resource Recovery Certification regulations not broad enough

3. What are the economic issues?
    - Incentive capital for start up costs
    - Cost of getting a permit

- Cost of labor
- Cost of transportation
- Tax incentives
- Grants
- Contracting set aside/proactive procurement, creating an available market, i.e. declaring the State of Missouri will recycle all electronics
- Consumer lack of interest in paying for disposal
- Low costs of disposal and export

4. What incentives exist or should be created?
    - Educate/motivate the public
    - Upfront recycling fee that is a private/public collaboration
    - Recycling coupon included with new computers
    - For recycling an existing old computers, when an individual properly recycles an old computer they receive a coupon for money off a new computer
    - Alternative labor, high school students, correctional facilities, sheltered workshops

VII. Report Back

The facilitator of each subgroup presented their groups strategic points the larger stakeholder group. It was reiterated that these were just ideas, nothing was final.

VIII. Next Steps and Closing

Mr. Bob Geller, Director of the Hazardous Waste Program, thanked the stakeholders for taking the time to meet and discuss e-waste. The framing committee would now take the issues discussed by each of the subgroups and try to find any commonalities between the items.

A. Put together the meeting minutes – subgroup facilitators (Heidi Rice will compile)

B. Post all presentations, hand-outs and meeting minutes on the stakeholder Web site – Heidi Rice

C. Next Meeting: April 19, 2006. A call-in number will be provided for participants unable to travel to Jefferson City.